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**Title:** JP9124327A2: FINE HOLLOW GLASS BALL AND ITS PRODUCTION

**Derwent Title:** Producing micro glass balloons - used as lightweight filler for plastics, floating material for ships, synthetic wood or artificial marble [\[Derwent Record\]](#)

**Country:** JP Japan

**Kind:** A

**Inventor:** YAMADA KENJI;  
HIRANO HACHIRO;  
SATO MASAKUNI;

**Assignee:** ASAHI GLASS CO LTD  
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**Published / Filed:** 1997-05-13 / 1996-08-21

**Application Number:** JP1996000220120

**IPC Code:** C03B 19/08; C03C 11/00; C08K 3/40;

**ECLA Code:** B63B43/10; C03C11/00B;

**Priority Number:** 1995-08-28 JP1995000219068

**Abstract:** PROBLEM TO BE SOLVED: To readily produce fine hollow glass beads having a uniform particle size by subjecting formulated glass raw materials containing a foaming agent to wet milling to form a slurry of fine particles and heating them in the form of liquid drops for vitrification.

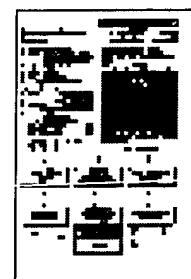
SOLUTION: Glass raw materials such as silica sand, soda ash, borax, lime and the like and a foaming agent such as sodium sulfate are mixed to prepare a formulated glass raw materials. This formulated glass raw materials are wet-crushed to prepare of a slurry of a formulated glass raw materials of 3µm average particle size. The suitable crusher is made of alumina or zirconia at the liquid contacting with the liquid. Then, the slurry is atomized into liquid particle by spraying, ultrasonic atomization, or centrifugation, heating the liquid particles to effect vitrification and simultaneously produce fine hollow glass beads. The objective fine hollow glass beads have a particle size of 1-50µm, a real density of 0.1-1.5g/cm<sup>3</sup>, a low specific gravity and is useful as a floatation material for ships.

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**Family:** None

**Forward References:** [Go to Result Set: Forward references \(1\)](#)

PDF	Patent	Pub.Date	Inventor	Assignee	Title
			Tanaka;	Asahi Glass	Fine hollow glass sphere and



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Image

1 page

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 <b>US6531222</b>	<b>2003-03-11</b>	<b>Masaharu</b>	<b>Company, Limited</b>	<b>method for preparing the same</b>
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Other Abstract  
Info:

DERABS C1997-316360 DERABS C1997-316360

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(11) Publication number: **09124327 A**

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**PATENT ABSTRACTS OF JAPAN**(21) Application number: **08220120**(51) Intl. Cl.: **C03B 19/08 C03C 11/00 C08K 3/40**(22) Application date: **21.08.96**(30) Priority: **28.08.95 JP 07219068**(43) Date of application  
publication: **13.05.97**(84) Designated contracting  
states:(71) Applicant: **ASAHI GLASS CO LTD**(72) Inventor: **YAMADA KENJI  
HIRANO HACHIRO  
SATO MASAKUNI**

(74) Representative:

**(54) FINE HOLLOW GLASS  
BALL AND ITS  
PRODUCTION**

(57) Abstract:

**PROBLEM TO BE SOLVED:** To readily produce fine hollow glass beads having a uniform particle size by subjecting formulated glass raw materials containing a foaming agent to wet milling to form a slurry of fine particles and heating them in the form of liquid drops for vitrification.

**SOLUTION:** Glass raw materials such as silica sand, soda ash, borax, lime and the like and a foaming agent such as sodium sulfate are mixed to prepare a formulated glass raw materials. This formulated glass raw materials are wet-crushed to prepare of a slurry of a formulated glass raw materials of 3 μm average particle size. The suitable crusher is made of alumina or zirconia at the liquid contacting with the liquid. Then, the slurry is atomized into liquid particle by spraying, ultrasonic atomization, or centrifugation, heating the liquid particles to effect vitrification and simultaneously

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